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WE MEAN BUSINESS

A Directory of Resources for Business and Industry

A Publication of the
University of Massachusetts Amherst
and
Western Massachusetts Electric Company

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This directory is a product of a partnership between the Amherst campus of the University of Massachusetts and Western Massachusetts Electric Company to improve the economic health of western Massachusetts. The partnership also provides new resources for manufacturing productivity and small business assistance, economic development planning, executive education, and a Springfield office for University outreach.

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General Assistance to Business and Industry

Center for Manufacturing Productivity

Small and medium-sized businesses make up the largest portion of the manufacturing industry in Western Massachusetts. These companies need modern management techniques and production technologies to stay competitive in the global marketplace, but such services can be very costly. That's where the Center for Manufacturing Productivity (CMP) can help.

The CMP provides small and medium-sized manufacturing businesses with comprehensive and integrated assistance in management and engineering through the expertise of UMass faculty in the School of Management and College of Engineering. Through on-site consultation and evaluation, the CMP staff, working with company management, will develop a detailed and cost-effective program specific to each company's needs. WMECO is supplementing the work of the Center by providing $50,000 to fund a full-time field service professional to conduct needs assessments, on-site consultations and other services.

The Center also offers workshops on the latest developments in management, engineering and research and development. Companies can request on-site consultation and training sessions to implement workshop concepts in their businesses.

Businesses served:	Small and medium-sized manufacturing companies in Western Massachusetts
Service provided:	On-site consultations, specialized industrial projects, generic research projects and education and training designed to improve manufacturing productivity through modern management strategies and production technologies
Performed by:	CMP staff; UMass faculty and graduate students in engineering and management
Fee:	Varies; some services free; 50 percent cash match usually required for individually negotiated projects
Contact:	D. Anthony Butterfield Center for Manufacturing Productivity 208C School of Management University of Massachusetts Amherst, MA 01003
Phone:	(413) 545-5676

Center for Economic Development

The Center for Economic Development (CED) assists cities, towns and organizations in retaining their employment base. Many cities and towns in Massachusetts find the vast experience and expertise at the CED an invaluable resource in these tough economic times. Sponsored in part by the U.S. Economic Development Agency, the CED in the last two years has provided technical and training assistance on economic development matters to more than 90 communities across Massachusetts.

While the impact of its work sometimes takes years to be visible, some of the anticipated results of the CED's work in Massachusetts include:

* a marketing campaign to save the Waverly Mill in Adams
* 1,000 potential retail jobs in the Millbury rezoning project
* 1,000 potential biotechnology jobs in the Grafton rezoning project
* creation of a new industrial park in Springfield
* 800 potential white collar jobs at the University Industrial Park in Hadley.

WMECO is sponsoring a project by the Center for Economic Development to create a comprehensive map of all industrial properties in the area available to manufacturers. Also under consideration is a project to compile a comprehensive inventory of empty manufacturing facilities in the region.

Served:	Cities, towns and organizations
Service provided:	A wide range of expertise and skills designed to help clients retain their employment base, including (but not limited to) industrial master plans, marketing and demographic analysis, tourism studies and plans, economic base studies and feasibility and building re-use studies
Performed by:	Six UMass faculty, three staff members and graduate students
Fee:	On average, $2,000 per project; however, in extreme cases, part of the fee can be waived
Contact:	Center for Economic Development 109 Hills North University of Massachusetts Amherst, MA 01003
Phone:	(413) 545-2255

Center for Travel Research and Management

The Center for Travel Research and Management (TRAM) assists in the development and management of tourism for the social, cultural and economic benefit of the Commonwealth. On a fee-for-service basis, TRAM can conduct economic, social and cultural impact studies and can provide hospitality service training workshops.

The Massachusetts tourism industry generates about $12 billion in economic impact to the state and employs more than 200,000 people who work in hotels, restaurants, museums, attractions, gift shops and related businesses. As an emerging leader in the area of economic development, tourism provides some unique challenges for both rural and urban communities.

Served:	Public and private businesses, organizations and communities involved in tourism or those who would like to develop tourism opportunities as a means of economic development
Service provided:	Economic, social and cultural impact studies; hotel and restaurant feasibility studies; marketing and consumer trend studies, and hospitality service training workshops
Performed by:	Faculty and students from the UMass Department of Hotel, Restaurant and Travel Administration
Fee:	Varies according to service provided
Contact:	Linda Lowry, Director Center for Tourism, Research and Management Department of Hotel, Restaurant and Travel Administration University of Massachusetts Amherst, MA 01003
Phone:	(413) 545-4041; FAX (413) 545-1235

Donahue Institute for Governmental Service

The Maurice A. Donahue Institute for Governmental Services is the public service and outreach unit of the President's Office of the five-campus University of Massachusetts. The Institute maintains offices on the Boston and Amherst campuses as well as several affiliated sites throughout the Commonwealth. The Institute's services involve economic and organizational development, but vary widely because services are tailored for each of its public, private and non-profit sector clients.

Among the wide variety of services the Institute offers to businesses and industry are:

* assessment and technical assistance — organizational, economic and community development programs
* training and educational services — workplace and entrepreneurial training, occupational re-entry programs, wellness and fitness programs; dislocated worker assistance programs, and international programs
* applied research and evaluation — needs assessment, survey research and impact evaluations
* other special projects.

Businesses served:	Small and medium-sized businesses, industry associations and large corporations
Service provided:	Varies according to needs of client
Performed by:	Institute staff and UMass faculty
Fee:	Contracts individually negotiated
Contact:	Donahue Institute 220 Middlesex House University of Massachusetts Amherst, MA 01003
Phone:	(413) 545-0001

Energy Analysis and Diagnostic Center

The Energy Analysis and Diagnostic Center (EADC) staff analyzes energy consumption patterns of small and medium-sized industrial firms and recommends energy and cost-savings measures, usually in the manufacturing process.

Sponsored by the U.S. Department of Energy, the EADC audited 260 manufacturing plants between 1984 and 1992 and recommended changes that would yield energy savings of about $30,000 a year per plant. The expense to implement these cost-saving measures was recouped on average in less than 15 months.

Businesses served:	Small and medium-sized plants with annual sales of $75 million or less and no more than 500 employees, and which consume energy at a cost of $1.75 million a year or less
Service provided:	Analysis of energy consumption and recommendation of cost and energy saving measures
Performed by:	UMass faculty and students
Fee:	None for qualified businesses
Contact:	Lawrence Ambs, Director Energy Analysis and Diagnostic Center Mechanical Engineering Department University of Massachusetts Amherst, MA 01003
Phone:	(413) 545-2539

The Environmental Institute

The Environmental Institute provides environmental research services to public agencies and private firms. The Institute organizes interdisciplinary teams of faculty, staff and graduate students from the University's academic departments. The Institute's four units – the Massachusetts Water Resources Research Center, the Cooperative Agency Program, the Cooperative Marine Education and Research Program and the UMass Archaeological Services – provide research and training on a broad range of environmental issues and problems, such as:

* water resources research and acid rain monitoring
* wetlands policy, research and education
* land use and environmental planning
* archaeological services
* orthophotomapping and wetlands delineation
* marine education and research.

Since 1985, The Environmental Institute – which strives for innovative means to increase cooperation and collaboration between the University and both public agencies and private firms – has completed more than 225 projects for public agencies, cities and private firms. Call the Institute for help with environmental concerns or consulting needs.

Businesses served:	Any
Service provided:	Research and consulting on a wide range of environmental issues and problems
Performed by:	UMass faculty, staff and graduate students
Fee:	Varies
Contact:	Dr. Joseph Larson, Director The Environmental Institute Blaisdell House University of Massachusetts Amherst, MA 01003
Phone:	(413) 545-2842

Food Science Pilot Plant

Each year about a dozen companies use the Food Science pilot plant facilities to evaluate new products before making a large capital expenditure and to develop new products before proceeding to a full manufacturing scale.

One such company is Veryfine Products Inc., with headquarters in Littleton, Mass. During the three-year period that Veryfine has collaborated with the department on the development of 10 successful products the company has doubled its gross volume.

Industry demand for graduates from the University's Food Science Department far outstrips the supply: Food Science boasts a 100 percent placement rate for its graduates who learn the practical industry applications of their field while in the department's laboratories on campus.

Businesses served:	Any food-related industry
Service provided:	Pilot plant facilities to test new food products and food production processes
Performed by:	UMass faculty and students
Fee:	Varies
Contact:	Pavinee Chinachoti Associate Professor Department of Food Science Chenoweth Laboratory University of Massachusetts Amherst, MA 01003
Phone:	(413) 545-1025 FAX: (413) 545-1262

Massachusetts Nutrient Data Bank

The Massachusetts Nutrient Data Bank (MNDB) enables computer-assisted evaluations of dietary intake information. Information from the MNDB can be useful in research, clinical and educational settings, individual or group evaluations, or product development.

The MNDB offers comprehensive dietary, menu and recipe analysis for calorie and nutrient values. The standard dietary analysis program provides a food-by-food listing for kilocalories and 16 basic nutrients summarized over meals and days. Analyses of daily intake totals include an additional nine nutrients, three nutrient ratios and the percent distribution of calories from protein, fat and carbohydrates. This program can also be used to evaluate menu plans for nutritional adequacy against established standards and in relation to nutrient density.

The recipe analysis program provides a listing of 53 different nutrients, the nutrients contained in one serving, and the nutrients per 100 grams of the product. Information can also be obtained on the nutrient composition of each ingredient in a recipe.

Businesses served:	Any seeking nutritional analysis of a product, menu or meal plan
Service provided:	Nutrient evaluation of recipes, meals and diet
Performed by:	MNDB staff
Fee:	Base cost for recipe analysis $5; modifications to basic recipe at additional cost; food record analysis fees graduated based on number of days evaluated
Contact:	Mary Jane Laus Department of Nutrition Chenoweth Laboratory University of Massachusetts Amherst, MA 01003
Phone:	(413) 545-4238

Massachusetts Small Business Development Center

The Massachusetts Small Business Development Center (MSBDC) provides free one-on-one counseling assistance to prospective and existing small businesses in Massachusetts in business plan development, finance, cash flow management, human resource issues and marketing. A statewide network of five regional centers and three specialty center programs delivers these services.

In fiscal year 1992, the MSBDC counseled nearly 4,000 clients and offered 111 training programs for more than 2,000 attendees.

Regional centers are located in Springfield, Chestnut Hill, Fall River, Salem and Worcester, with specialty centers providing assistance in capital formation, minority business assistance and international trade. Anyone seeking assistance can reach one of the 32 outreach sites across the state in 30 minutes or less. Outreach sites in Western Massachusetts are in Amherst, Athol, Chicopee, Greenfield, Holyoke, Northampton, Palmer, Pittsfield and Westfield.

The MSBDC is a partnership of the U.S. Small Business Administration, the Massachusetts Executive Office of Economic Affairs and a consortium of higher education institutions led by the University of Massachusetts Amherst. Other institutions include Boston College, Salem State College, Clark University and the University of Massachusetts Dartmouth.

Making small businesses in Massachusetts thrive is a daunting and difficult endeavor, yet most experts agree that these companies represent a major portion of future economic growth in the region.

Businesses served:	All small businesses
Service provided:	Counseling to prospective and existing small businesses; management training programs also offered
Performed by:	MSBDC staff
Fee:	Counseling free; training programs are offered for a nominal fee
Contact:	John Ciccarelli, Director Mass. Small Business Development Center 205 School of Management University of Massachusetts Amherst, MA 01003
Phone:	(413) 545-6301

Translation Center

Companies looking to overseas markets should consider the services of the UMass Translation Center.

Experts at the Translation Center can translate a wide range of written material – commercial, technical, legal, personal, medical, literary and academic – to English or from English into dozens of foreign languages. Drawing upon the resources of the University and the Five College area, the Center can help develop commercial, technical, sales and legal documents that will allow companies and individuals to communicate effectively and accurately with foreign markets.

The languages translated are extensive, ranging from Chinese to Czech and French to Farsi. Free estimates and delivery dates are provided when a copy of the material to be translated is submitted.

Businesses served:	All
Service provided:	Translation of a wide range of material – academic, personal, medical, commercial, legal, literary and technical – into English or from English into many foreign languages
Performed by:	Faculty, students and staff from the University and the Five College community
Fee:	Varies according to document length, technical difficulty and other considerations
Contact:	The Translation Center Division of Continuing Education 610 Goodell Building University of Massachusetts Amherst, MA 01003
Phone:	(413) 545-0476

University Conference Services

University Conference Services offers full-service meeting and conference facilities for groups of 10 or 10,000. Small groups can get together at the beautiful Hadley Farm; medium-sized gatherings can employ the facilities at the Campus Center; large organizations can take advantage of the Mullins Center.

Through Conference Services, meetings and conferences have access to University facilities, which include 116 full-service hotel rooms in the Campus Center, restaurants, meeting space, and one of the loveliest settings in Western Massachusetts. During the summer, from late May to mid-August, services are expanded to include the 10,600-bed residence hall system, cafeteria style dining in the campus dining commons and access to the 10,000 seat Mullins Center.

University Conference Services also offers computerized registration services for meetings at the University or at other sites. Registration services include assisting with registrations forms, mailings, full pre-registration, on-site distribution of attendee materials, final management reports and attendee lists.

Businesses served:	All
Service provided:	Full-service meeting and conference facilities for groups ranging in size from 10 to 10,000
Performed by:	University Conference Services staff
Fee:	Varies
Contact:	Debria Smith Director of Sales and Marketing Conference Services 918 Campus Center University of Massachusetts Amherst, MA 01003
Phone:	(413) 545-2591 FAX: (413) 545-0050

Conference on Hydrocarbon-Contaminated Soils

About 2,500 sites are contaminated by petroleum in Massachusetts, and safe and effective clean-up of those sites requires up-to-date knowledge of the evolving body of technological information and regulations.

Every year, the Council for the Health and Environmental Safety of Soils (CHESS) hosts a national conference dealing with issues related to hydrocarbon-contaminated soils. Co-sponsored by the Massachusetts Department of Environmental Protection, these three-day conferences assist and inform a wide-range of professionals and consumers who are affected by this field of environmental regulation, including:

* municipal, county and state officials involved with implementing regulations concerning storage, distribution and transportation of hydrocarbons
* consultants to property and business owners
* environmental service company executives and engineers
* real estate, insurance and banking representatives who require audits of soils before property sales.

Hydrocarbon contamination can stem from an industrial source or just a leaking tank in the back yard. This conference helps participants keep ahead of the curve in this field of environmental technology and regulation.

Businesses served:	Any individual, business or public entity that regulates, provides solutions for or has a problem with hydrocarbon contaminated soil
Service provided:	Annual national three-day conference
Performed by:	The UMass Amherst Council for the Health and Environmental Safety of Soils
Fee:	About $500 registration fee; individual workshops additional
Contact:	Paul Kostecki, Managing Director, CHESS Division of Public Health University of Massachusetts Amherst, MA 01003
Phone:	(413) 545-4610

Research and Technology Transfer

Biotechnology Program

Biotechnology is expected to be a major contributor to economic growth in the coming decades, and Massachusetts is already recognized as a national leader in this industry. UMass Amherst is committed to being at the forefront of sustaining the growth of biotechnology, and is strongly positioned for this role through the caliber of its faculty and graduates and the breadth of its research projects in the life sciences.

Some of these projects involve collaboration with industry. Many of these industry-supported projects, along with new projects soon to be initiated, are expected to generate valuable biotechnology. Among the research areas currently supported at UMass are:

* biochemistry
* molecular and cell biology
* molecular genetics
* neurobiology
* immunology
* virology
* microbiology
* environmental biotechnology
* entomology
* plant biology
* veterinary and animal science
* food science.

The Biotechnology Program will work closely with industry to promote entrepreneurial initiatives at the University and to ensure that this technology is efficiently transferred to industry.

Businesses served:	Firms working with biotechnology
Service provided:	Research and consultation
Performed by:	UMass biotechnology faculty and graduate students
Fee:	Varies
Contact:	Dr. Frank Cannon Director, Biotechnology Program 435 Morrill Science Center North University of Massachusetts Amherst, MA 01003
Phone:	(413) 545-1807 FAX: (413) 545-1812

Center for UMass-Industry Research on Polymers

The Center for UMass-Industry Research on Polymers (CUMIRP) promotes industrial innovation in polymer science and engineering through cooperative research between industry and the University. Industry polymer scientists work jointly with UMass faculty to plan and oversee CUMIRP's research activities. Results of the consortia's research are incorporated into the industry participants' own research and development programs.

Initially established in 1980 as a National Science Foundation research center, CUMIRP receives its funding only from industry. Members join CUMIRP for many reasons, such as increasing competitive advantage, keeping up with new research, being able to consult with internationally renowned faculty, and expanding research capacity through pooled funding. Current members include Dow, duPont, Eastman Kodak, Exxon, General Electric and the Army Laboratories in Natick and Watertown.

With the completion in 1994 of the $57 million Silvio O. Conte Center for Polymer Research, the largest polymer research facility in the nation, UMass will have a state-of-the-art facility to conduct cutting-edge research and ensure UMass a leading role in the 21st Century in the field of plastics.

Businesses served:	Consortium members; any company with an interest in polymer research is invited to join
Service provided:	Research and consultation
Performed by:	UMass Polymer Science faculty
Fee:	Varies
Contact:	Simon W. Kantor CUMIRP Director Department of Polymer Science and Engineering Lederle Graduate Research Center University of Massachusetts Amherst, MA 01003
Phone:	(413) 545-2236

Computer Science-Industry Collaborations

The Department of Computer Science at UMass supports some of the most advanced research in the world in artificial intelligence, computer vision, distributed computing, software engineering and other fields. Ranked among the top four or five university computer science departments in the nation in total annual research funding, the department has created an innovative model for University/industry collaboration and technology transfer.

Computer Science Industrial Affiliates Program

The Computer Science Industrial Affiliates Program (IAP) coordinates and develops a variety of innovative activities with member corporations. Member corporations – which include GTE, Honda, IBM, Kodak, Lockheed Georgia, Monsanto and Texas Instruments – also benefit from the IAP's educational and recruitment opportunities. Some of the benefits enjoyed by IAP members are:

* access to new and innovative research via focused workshops and short courses
* better opportunities to recruit top Ph.D., M.S. and B.S. graduates
* complimentary copies of the Computer Science Department's technical reports published by faculty and students
* invitations to all of the department's colloquia, lecture series and the Annual Research Review for Industry.

In addition, affiliation with the Department of Computer Science facilitates formal research and educational benefits that can provide members with access to laboratory facilities for testing software and equipment, consultations with leading researchers, educational programs designed for company employees and development of long-term research on targeted areas.

Center for Research on Intelligent Complex Computing Systems

Established to provide interdisciplinary research between the University and industry on problems associated with large complex systems, the Center for Research on Intelligent Complex Computing Systems (CRICCS) addresses problems relevant to both industry and computer science. Research at CRICCS is focused on the needs of the next century. The current research on applications include real-time process control and cooperation among autonomous agents, intelligent information retrieval, natural language processing and distributed computing networks.

Applied Computing Systems Institute of Massachusetts, Inc.

The Applied Computing Systems Institute of Massachusetts (ACSIOM) accelerates industry applications of university research and development and provides education and training to researchers outside the University.

A private, non-profit corporation, ACSIOM provides technical and educational services to companies conducting applied research. It also facilitates product development and enhancement and furnishes technical consulting, licensing of new technologies, workshops, short courses and seminars to industry. ACSIOM also incorporates startup companies and participates in joint ventures.

Businesses served:	Any business with complex problems requiring sophisticated computing solutions
Service provided:	Research and transfer of computer science technology from the University to industry
Performed by:	UMass Computer Science faculty
Fee:	Varies
Contact:	Paul McOwen Deputy Chairman Department of Computer Science Lederle Graduate Research Center University of Massachusetts Amherst, MA 01003
Phone:	(413) 545-2475

Chemical Process Design and Control Center

The Chemical Process Design and Control Center focuses on applied research in the design and control of chemical processes. Some of the center's activities of interest to business and industry include advanced computer methods for design of new processes, re-design of existing processes and the design of control systems to meet new requirements such as product quality or waste minimization.

Regular meetings on campus provide opportunities for center sponsors to be updated on recent research results and to meet faculty, students and representatives from other sponsors interested in process design and control. The center's spring meeting usually includes a one-day workshop in the area of interest to the sponsors.

The center receives no direct government support. Contributions from sponsors – which include Eastman Chemicals Co., E. I. duPont Co. and Union Carbide Chemicals & Plastics – supplement government and industrial research funding of the faculty.

Businesses served:	Center sponsors; new sponsors encouraged to join
Service provided:	Research in chemical processing
Performed by:	UMass chemical engineering faculty
Fee:	$15,000 to $30,000, depending on level of participation in the center
Contact:	Michael F. Malone Professor of Chemical Engineering 159 Goessmann Laboratory University of Massachusetts Amherst, MA 01003
Phone:	(413) 545-2507 FAX: (413) 545-1647

Applied Technology Center

The Applied Technology Center (ATC) develops and facilitates interaction between the University and industry through mutually beneficial and educationally relevant research activities. Through the ATC, faculty expertise and the facilities of the College of Engineering are made available to private industry on a contract basis for applied research and development.

Included in the areas of expertise available in the College of Engineering are:

Chemical Engineering
Polymer Engineering
Process Design and Control
Reaction Systems
Transport Processes
Applied Theoretical Chemistry.

Civil Engineering
Environmental Engineering
Geotechnical Engineering
Structural Engineering and Mechanics
Transportation Engineering.

Electrical and Computer Engineering
Computer Systems
Microwaves and Electronics
Communications and Control Systems.

Industrial Engineering and Operations Research
Production and Manufacturing
Operations Research and Applied Probability
Human Factors Engineering.

Mechanical Engineering
Manufacturing Engineering
Materials Engineering
Mechanical Design
Thermal-Fluids Engineering.

Businesses served:	Any
Service provided:	Applied research based on industry needs
Performed by:	Faculty from UMass College of Engineering
Fee:	Individually negotiated contracts
Contact:	Lloyd Kent, Managing Director Applied Technology Center College of Engineering Marston Hall University of Massachusetts Amherst, MA 01003
Phone:	(413) 545-4779

EDUCATION

Continuing Education

The Division of Continuing Education at UMass provides access to the academic resources of the University to the general community, to local and national businesses throughout the state, and to Massachusetts citizens who are not full-time degree students. The Division works closely with the various academic units in planning and offering credit and non-credit programs to meet the needs of nontraditional students. Continuing Education organizes evening courses, post-baccalaureate teacher certification, Winter Session and Summer Session.

For more information, call (413) 545-2414.

Adventures in Lifelong Learning Workshops

The Adventures in Lifelong Learning program offers a wide range of workshops and seminars to enhance individual personal growth and business skills.

Two of the more popular workshops are in English as a Second Language and microcomputer skills on both IBM and Macintosh. Workshops can be tailored to fit a company's particular needs. In addition, many workshops and seminars may be held in the workplace. Past on-site workshop topics have included sexual harassment, grant writing and grammar review for adults. The staff can discuss the possibilities for seminars in off-campus workplaces.

Businesses served:	All
Service provided:	Workshops and seminars for personal growth and business skill enhancement
Performed by:	Various workshop instructors
Fee:	Varies according to length of course and number of students; competitive fee structure
Contact:	Honore David, Program Manager 610 Goodell Building University of Massachusetts Amherst, MA 01003
Phone:	(413) 545-0474

Continuing Education

Artist Business Workshops

The Arts Extension Service (AES) offers workshops and other fee-based and free services to help artists in basic business skills. These workshops, offered in the spring, teach artists principles of marketing and financial management. "Planning Your Market Strategy" helps artists to select markets, position their products within the market and determine price, product, promotion and distribution. "Basic Artist Business Practices" helps develop skills in budgeting, legal rights in contract and copyrights, and shows artists how to seek funding through grants, commissions, competitions and other sources.

In addition, Arts Extension maintains an artist and business library that anyone may use without charge. Located in the AES office, this library contains many reference sources and guidebooks on marketing, grant writing, record keeping, contracts, insurance and art law, as well as selected periodicals, directories and national job listings publications. The AES also produces several publications available for a nominal fee.

Businesses served:	All artists
Service provided:	Workshops and individual consulting on basic business practices; also a library
Performed by:	Arts Extension Service staff
Fee:	For workshops, varies; consulting fees based on approximately $30/hour; library free
Contact:	Pam Korza, Arts Extension Service Goodell Building University of Massachusetts Amherst, MA 01003
Phone:	(413) 545-2360

Continuing Education

Bachelor of General Studies Degree

The Bachelor of General Studies (B.G.S.) is a University of Massachusetts degree awarded to part-time students through the Division of Continuing Education. The B.G.S. program is flexible and intended for those who have difficulty pursuing a bachelor's degree full time due to family, work or other circumstances.

For more information, call (413) 545-3430.

Professional Development and Certificate Programs

One of the goals of the Division of Continuing Education is to meet the requirements of both employers and adult learners who wish to upgrade their skills as well as those who wish to change careers. The Professional Development and Certificate Programs strive to help individuals develop the specialized skills needed to function in a rapidly changing society.

Examples of these programs include a post-baccalaureate teacher certification program, a soil science certification program, real estate principles and an "R.N. to B.S.N." program that trains registered nurses for a bachelor of science in nursing. Specific programs and workshops can be designed for individuals or organizations upon request.

For more information, call Kevin Aiken at (413) 545-2111.

Executive and Senior Manager Education

The School of Management offers on-campus or on-site education for business executives and senior managers. These one-day to week-long offerings are taught by UMass faculty and cover areas such as communication skills, leadership skills, finance, accounting and strategic planning.

An example of this effort is the Business Certification Program, which offers professionals a unique opportunity to upgrade management skills in a short time. This 90-hour non-credit course covers the fundamentals of finance, accounting, management and economics and is taught by three top professors from the School of Management faculty. Successful completion of the Business Certification Program fulfills prerequisite requirements for applicants to the Professional M.B.A. program who do not hold bachelor's degrees in business or management.

Businesses served:	All
Service provided:	Specialized education in business and management areas for executives and senior managers
Performed by:	UMass School of Management faculty
Fee:	Varies according to subject matter and number of students; Business Certification Program is $1,200
Contact:	Stephen Demski Associate Director, Master's Programs 209 School of Management University of Massachusetts Amherst, MA 01003
Phone:	(413) 545-5652

Professional M.B.A.

The School of Management offers a unique career building program for professionals and managers looking to change careers, advance in their organizations, or improve their business skills – the Professional Master of Business Administration degree program.

All classes for this accredited 36-credit program are taught in the evening by UMass faculty on the campus of Holyoke Community College. By taking two courses each semester and in the summer, the Professional M.B.A. can be completed part-time in about 24 months.

This is a great opportunity for working professionals to achieve a top-flight graduate business education at a reasonable cost.

Businesses served:	All
Service provided:	Master of Business Administration degree program for those with three years of professional or managerial work experience and an undergraduate degree; prerequisites vary according to applicant's background and experience
Performed by:	UMass School of Management faculty
Fee:	Tuition less than $300 per credit
Contact:	Stephen Demski Associate Director, Master's Programs 209 School of Management University of Massachusetts Amherst, MA 01003
Phone:	(413) 545-5652

University Without Walls

University Without Walls (UWW) is a flexible degree program serving those unable to pursue traditional undergraduate degrees. UWW offers a first-rate university education to busy working adults and enables them to incorporate management, sales or other important experiences in a bachelor's degree program.

Each UWW student designs an individualized degree program that incorporates past college credit, experiential learning and new academic work. University credit toward a bachelor's may be awarded for learning acquired through life or work experience. Students work closely with academic advisors who suggest faculty and course selections and help with developing an individualized degree program.

Businesses served:	All – serves working adults in many kinds of organizations
Service provided:	Individually designed bachelor's degrees for non-traditional students with credit awarded for some previous work and life experiences
Performed by:	UMass faculty and staff
Fee:	Regular University tuition and fees; $100 per semester advising fee, and sliding prior learning assessment fee
Contact:	*Amherst:* Montague House University of Massachusetts Amherst, MA 01003
	Springfield: Room 267, Garvey Hall Springfield Technical Community College Springfield, MA 01101
Phone:	Amherst: (413) 545-1378 Springfield: (413) 732-5262

Video Instructional Program

To keep pace with rapidly changing technology and compete in a global economy engineers need continuing graduate-level education. The Video Instructional Program (VIP) at UMass meets the needs of working engineers by offering broadcasts of on-campus engineering classes. VIP students can earn a master's degree or audit a course without ever setting foot on the Amherst campus.

Using videotape and satellite broadcast, the VIP delivers credit and non-credit courses to professional engineers from more than 300 companies across the country, including Digital Equipment, Raytheon, Mitre and New England Telephone. These and other businesses register some 1,500 employees annually. Students communicate directly with faculty during live broadcast and reserved VIP phone hours or through electronic mail.

Businesses choose this 18-year-old program not only for its outstanding faculty, excellent service and flexible time schedule, but also because employees can earn a master's degree at their workplace in their spare time.

Businesses served:	Any high technology industry
Service provided:	Graduate education in engineering and other related fields; master's degree, credit, non-credit and "short" courses offered via satellite broadcast or videotape
Performed by:	Courses taught by UMass faculty; technical and support services provided by VIP staff
Fee:	$1,050 per three-credit course (registration and billing fees additional); rental and purchase fees for non-credit courses vary; course offerings and fees may alter by semester
Contact:	Video Instructional Program College of Engineering 113 Marcus Hall University of Massachusetts Amherst, MA 01003
Phone:	(413) 545-0063

Information and Referrals

Massachusetts Institute for Social and Economic Research (MISER)

The Massachusetts Institute for Social and Economic Research (MISER), a public service and public policy research unit, was designated in 1988 as the special Business/Industry Data Center by the U.S. Bureau of the Census. The Institute in turn signed a memorandum of agreement with the Foreign Trade Division of the Census to improve national data on exports and now contributes data to the National Trade Data Bank.

FOREIGN TRADE DATA:

MISER has developed a management information system for foreign trade data to help potential exporters find the best foreign markets for their products. The data base, the source of new academic research on international trade and relations, contains:

* daily trade leads
* a listing of 45,000 foreign brokers, agents and importers
* foreign industry reports
* demographic profiles of foreign countries
* detailed state and U.S. level trade statistics.

MASSACHUSETTS DATA CENTER:

MISER also houses the State's Data Center, archiving and disseminating Census data crucial to both corporate planning and public policy formation. Through MISER, the following are available:

* the decennial censuses of housing and population
* the five-year censuses of manufacturing, government, wholesale and retail trade, agriculture, and services
* annual surveys in these same fields, including the current population surveys and statistics on construction, building permits and demolition.

In addition, MISER coordinates with the U.S. Bureau of the Census to produce population estimates for periods between the current time and the last decennial census used for school enrollment projections, local aid calculations in the state budget and in the Public Health Council Determination of Need program required of federal funds applications for medical equipment and facilities.

MISER staff can also help with many other corporate planning needs.

Served:	Business, industry, government agencies and non-profit organizations
Service provided:	Access to data and reports from a wide range of data sources, including data from the census and the national origin-of-exports reports
Performed by:	MISER staff
Fee:	Varies
Contact:	Nora Groves, MISER 128 Thompson Hall University of Massachusetts Amherst, MA 01003
Phone:	(413) 545-3460

University Library

The University Library's vast research collection is available to help with all information needs. Unlike the research libraries of private institutions, UMass does not charge a fee for library privileges. Massachusetts residents can obtain a University Library card with a picture identification.

Of particular relevance to business and industry, the University Library employs a business reference librarian whose particular field of expertise is finding materials and sources that a company may need. For assistance, call Jill Ausel, business reference librarian, at (413) 545-0150.

Among the services provided are an on-line catalog of the UMass and Five College library collections. Called LS 2000, this computerized system allows searching for book titles from off campus using a modem and a personal computer.

The Library's fee-based computer search service provides fast access to a wide range of information on any subject for which a computer search is possible. Cost of this service depends on the database or databases being searched, the length of the search, and the amount of material retrieved. A reference librarian can assist in creating a search strategy.

Please note that the University Library has a growing collection of reference material available on CD-ROM, including many sources that are extremely useful to businesses. This valuable source of information is free of charge. The Library staff will assist in accessing this important collection.

Businesses served:	All – open to general public
Service provided:	Access to the University's vast research collection through on-line card catalog and computer search services
Performed by:	Library staff
Fee:	On-line card catalog free; in-person computer searches free; fees for database searches conducted by library staff vary
Contact:	Reference Department University Library University of Massachusetts Amherst, MA 01003
Phone:	(413) 545-0150

Government Documents Depository

The University Library is a depository for federal government documents and publications, and has about 85 percent of the available material. Located in the Tower Library, this collection houses a wide variety of federal publications on paper, microfiche or compact disk.

Examples of materials in the collection are the Congressional Record, the Federal Register, informational publications, research and special reports, Congressional committee hearings and reports, official statistics, and decennial census data on population, housing and economics. In addition, Government Documents has official Massachusetts publications, local documents and copies of the official records and public documents of the United Nations.

For a particular government document, call the number below. Massachusetts residents with a University Library card can check out many documents in the collection.

Businesses served:	All – open to general public
Service provided:	Access to most federal publications; state, local and UN documents also available
Performed by:	Library staff
Fee:	None
Contact:	Bill Thompson, Head of Documents University Library, University of Massachusetts, Amherst, MA 01003
Phone:	(413) 545-2765

Patent and Trademark Depository

The UMass Physical Sciences Library is one of the U.S. Patent and Trademark Office's 75 national satellite collections. The library has all U.S. patents from 1950 to the present on microfilm, and can assist an inventor in conducting a patent search. Successful patent searches are based on specific technical information; therefore, the library staff suggests the inventor conduct the search in person.

In addition, the library holds records of U.S. trademarks on CD-ROM. Searches for trademarked words or phrases can be conducted by telephone. A call will usually provide an answer.

Businesses served:	All – open to general public
Service provided:	Search of U.S. trademarks; assistance with U.S. patent search
Performed by:	Library staff
Fee:	None
Contact:	Eric Esau, Head of Physical Sciences Library Lederle Graduate Research Center University of Massachusetts Amherst, MA 01003
Phone:	(413) 545-1370

Social and Demographic Research Institute (SADRI)

The Social and Demographic Research Institute (SADRI) of the UMass Department of Sociology has a 30-year history of providing administrative and technical support for research activities. Through SADRI, agencies and companies can arrange for consulting and contractual research services in research design, project evaluations, statistical methods, grant preparation, demographic studies, surveys and data analysis.

In addition, research at SADRI covers a broad range of topics, many of which are relevant to problems faced by businesses every day, such as (funding source in parentheses):

* "Business Elites and Political Realignment" (National Science Foundation)
* "Race, Ethnicity and Employment" (Russell Sage Foundation)
* "Child Care Dilemmas" (Rockefeller Foundation)
* "Parent-Child Relations Throughout the Life Course" (Rockefeller Foundation)
* "Evaluation of Springfield and Holyoke JTPA Dropout Programs" (Holyoke and Springfield public school systems)
* "Women in Unions in Massachusetts" (Faculty Research Grant)

Contact SADRI to obtain a copy of these and other research results.

Businesses served:	Any
Service provided:	Research assistance, computing facilities and consultation
Performed by:	UMass faculty, graduate students and staff
Fee:	Varies according to individual contracts
Contact:	Dr. Michael Lewis Professor of Sociology SADRI, Machmer W-3 University of Massachusetts Amherst, MA 01003
Phone:	(413) 545-3416 FAX: (413) 524-0746

Working Group on Economic Development

The Working Group on Economic Development assists and supports efforts of business, government and communities to develop linkages with the appropriate University departments. The Working Group members are administrators and researchers from different areas of campus. Working Group's services developed in response to industry requests include UMass Answers, Services to Industry Directories and a Technology Transfer Data Bank.

For further information, contact Dr. Miriam Williford, Chair, at (413) 545-2111.

Technology Data Bank Searches

More than 100 companies in 1992 used the Working Group on Economic Development's data bank of technology, which includes 120 listings for campus researchers whose work is of particular interest to industry. The listings in this data base are focused in the areas of science and engineering. This data bank service (also in booklet form) is used by industry giants such as Gillette Company, Hershey Foods, Genentech and 3M. Regular participation in technology transfer exhibitions strengthens links between industry and the Amherst campus in 19 fields of research.

Businesses served:	All
Service provided:	Referral to campus expertise in science and engineering through data bank that lists brief summaries of researchers' work in 19 departments
Performed by:	Working Group on Economic Development staff
Fee:	None
Contact:	Miriam Williford, Associate Provost for Continuing Education and Public Service Goodell Building University of Massachusetts Amherst, MA 01003
Phone:	(413) 545-2111

Faculty Consulting Referrals

With its data base containing the research interest profiles of more than 800 University researchers and scholars, the Office of Research Affairs most likely can provide contact with a UMass faculty or staff member who is interested in researching or currently investigating an issue or problem related to the requesting company.

Using a thesaurus of key words and phrases, the Research Affairs staff can help define the nature of a request and narrow the search to particular needs. The data base covers the entire spectrum of University research – from issues as specific as evaporation technology to broad areas such as international marketing. Finding a faculty consultant to provide expert help for any business can be as simple as a phone call.

Businesses served:	All
Service provided:	Referral to UMass scholars using a data base of the research interest profiles of more than 800 University scholars
Performed by:	Office of Research Affairs staff
Fee:	Data base search and referral free; faculty consultations vary
Contact:	Bruce McCandless, Director Office of Research Affairs 517 Goodell Building University of Massachusetts Amherst, MA 01003
Phone:	(413) 545-3428

UMass Answers

UMass Answers is a toll-free number for business, industry and government providing information referral to about 100 UMass-Amherst offices. For anyone needing help from the University and who doesn't know where to look or who to ask, UMass Answers is a good place to start.

Dial 1-800-282-7708

Human Resources Assistance

Mather Career Center

As a first call for professional employment-related needs, the Mather Career Center provides industry access to talented, job-ready candidates from more than 100 disciplines, including:

* engineering
* chemistry, physics and polymers
* nursing, public health and exercise science
* business, economics and hospitality
* urban and regional planning
* consumer studies and apparel marketing
* math and computer science
* biotechnology
* communications
* environmental studies
* Japanese, Chinese and Russian
* education, human services and legal studies.

As a service to employers, the Career Center provides:

* a comprehensive on-campus recruiting program for bachelor's-, master's- and Ph.D.-level candidates with the opportunity to pre-screen candidates. Employers choose the date and the Career Center will do the rest
* a computer-assisted referral to more than 3,600 recent grads and alumni able to meet immediate employment needs
* a direct resume referral service allowing the Career Center to fax resumes directly to employers
* a top-notch Field Experience Program of co-ops and interns to meet project-based needs; students are available full time or part time for three-, six- or eight-month assignments
* assistance with meeting workplace diversity needs (see next section).

Businesses served:	All equal opportunity employers
Service provided:	A full range of services matching human resources needs with UMass students, recent graduates and experienced alumni
Performed by:	Career Center staff
Fee:	None
Contact:	Mather Career Center University of Massachusetts Amherst, MA 01003
Phone:	Karen Knight, Industry Response Line: (413) 545-0742 P. Jane Hadley-Austin, ALANA Coordinator: (413) 545-6525

Help in Developing a Diverse Work Force

Through the staff at the Mather Career Center, employers can identify talented African, Latino, Asian, and Native American (ALANA) graduates, many of whom have prior industry experience through co-ops and internships. Our career service coordinator for ALANA students maintains strong ties to the five major on-campus support programs for students of color.

For more information, contact P. Jane Hadley-Austin at (413) 545-6525.

Job Search System

The Job Search System is a computerized program that matches employment needs with qualified UMass students seeking temporary, part-time or seasonal employment. Operated by the Student Employment Office, this system selects applicants by matching their qualifications and background with specified job requirements.

The Student Employment Office can make referrals to other campus organizations to help companies connect with potential student employees, such as advising from SEO staff and advertising in the student daily newspaper, *The Collegian.*

Businesses served:	All
Service provided:	Computerized search and referral of qualified student employees to specified employment vacancies and other services
Performed by:	Student Employment Office staff
Fee:	None; varies for special services
Contact:	Student Employment Office 243 Whitmore Administration Building University of Massachusetts Amherst, MA 01003
Phone:	(413) 545-1951

WMECO

Services by Western Massachusetts Electric Co. (WMECO)

ELECTRO-TECHNOLOGY

Through its affiliation with the Electric Power Research Institute (EPRI), WMECO has access to information and resources on the latest developments in electro-technology research. Expertise is available through EPRI's Center for Materials Processing to WMECO customers in numerous industry segments including plastics, metal working and paper making.

For example, WMECO is participating in a project sponsored by EPRI to reclaim sand used in the casting process. In the past the sand was discarded, but to save money and reduce environmental concerns, new processes using very high temperatures can remove residue now contained in the sand. WMECO is helping western Massachusetts foundries determine whether they can reclaim the material by paying the cost of testing local foundry sand in Pittsburgh.

MASSACHUSETTS ALLIANCE FOR ECONOMIC DEVELOPMENT

WMECO is a founding member of the electric utility-initiated "Massachusetts Alliance for Economic Development" (MAED). The organization is developing a state-wide economic development resource center and is operating an industrial site finder database. This will make it easier to assist businesses who wish to locate or expand in Massachusetts to find available properties that meet their requirements.

ENERGY CONSERVATION

WMECO has one of the nation's most extensive energy conservation programs available to commercial and industrial customers. Those programs include:

* Cash incentives to companies that retrofit their existing facilities to improve the electric efficiency of their operations. The focus is on lighting, motors, heating, ventilating, and air conditioning and computerized energy management systems
* Cash incentives to developers who incorporate energy saving construction techniques into their new facilities
* Cash incentives to commercial and industrial customers who replace older lighting systems with new energy-efficient lighting
* Energy audits and cash incentives to small industrial and commercial customers that install efficient lighting, motors, refrigeration, and HVAC equipment.

These are the highlights of WMECO's programs for commercial and industrial customers:

* Motor Rebate Program: Incentives are paid for the installation of premium efficiency three-phase motors of one to 250 horsepower or larger
* Energy Conscious Construction: Design assistance and energy-efficiency incentives for new construction are given in the areas of lighting, energy-efficient motors, HVAC systems and controls
* Lighting Rebate Program: Incentives for the installation of indoor energy-efficient lighting systems in existing buildings
* Energy Action Program: Shared cost of a detailed Energy Analysis Survey of a participating facility's electrical system and equipment. Direct cash incentives are paid for the installation of cost-effective energy conservation measures. This program is available after a 12-month history has been established and recorded at the participating facility
* EnergyCHECK: A commercial and industrial conservation program designed to help both small- and medium-sized customers up to 250 kW of demand. This cost-share program helps customers with incentives for the installation of energy efficient lighting, HVAC, motors, and refrigeration.

WMECO expects to make approximately $8.7 million available to commercial and industrial customers in 1993 to assist them to improve their efficiency.

Contact:
WMECO
Regional Conservation and Load Management Department
(413) 785-5871, Extension 2079

CUSTOMER ENGINEERING AND MARKETING SERVICES

Through its four district "Customer Engineering and Marketing Services" offices, WMECO engineers and marketing professionals can provide potential and existing customers expert advice on power service requirements, power quality problems, and electrotechnology issues. In addition, WMECO is widely recognized for its substantial achievements in assuring service reliability and adequate power supplies for its customers.

ECONOMIC DEVELOPMENT AND BUSINESS RETENTION RATES

WMECO can offer up to five years of reduced electric rates to companies that are considering moving into western Massachusetts, expanding their operations here or contemplating moving their operations outside the area.

The rates, approved by state regulators, are designed to keep the region's manufacturers and their jobs here. The reductions, which can be quite substantial, are negotiated individually with each customer that expresses an interest. Discounts are temporary and are designed to be used in conjunction with state and local incentives and with other assistance, including WMECO's energy conservation programs.

During the first year the rates were available, approximately 13 western Massachusetts employers qualified, helping to save or create nearly 1,000 jobs.